

CLAIMS

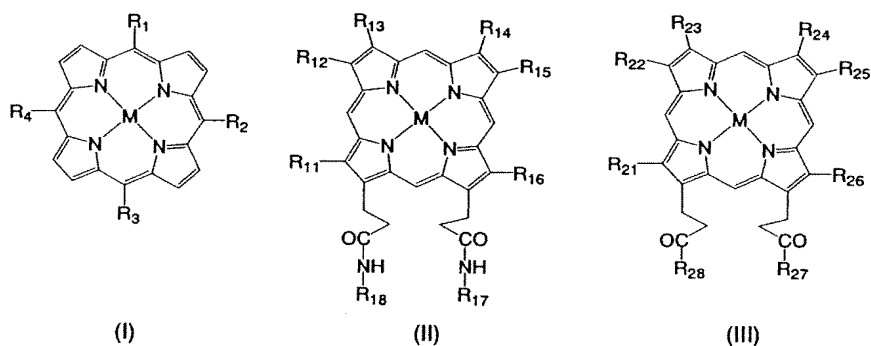
1. (Amended) A metalloporphyrin complex-embedding niosome comprising a cationized metalloporphyrin complex which forms an ion complex with an anionic surfactant and a niosome-forming substance.

2. (Cancel)

3. (Amended) The metalloporphyrin complex-embedding niosome according to claim 1, wherein the niosome-forming substance is a nonionic surfactant or a mixture of a nonionic surfactant and a cholesterol or a triacylglycerol.

4. (Amended) The metalloporphyrin complex-embedding niosome according to claim 1 or 3, wherein the niosome is endoplasmic reticula with a diameter of 100 nm or less.

5. (Amended) The metalloporphyrin complex-embedding niosome according to claim 1, 3, or 4, wherein the cationized metalloporphyrin complex is a complex shown by the following formula (I), (II), or (III),



wherein at least one of R₁ to R₄ is a group selected from an N-lower-alkylpyridyl group, a lower-alkylammoniophenyl group, and an N-lower-alkylimidazolyl group, R₁₁ to R₁₆ and R₂₁ to R₂₆ are lower alkyl or lower alkoxy groups, R₁₇ and R₁₈ are groups selected from an N-lower-alkylpyridyl group, a lower-alkylammoniophenyl group, and an N-loweralkylimidazolyl group, and R₂₇ and R₂₈ indicate N-alkylammonio groups.

6. (Amended) The metalloporphyrin complex-embedding niosome according to any one of claims 1 and 3 to 5, wherein the cationized metalloporphyrin complex is one or more of metal[5,10,15,20-tetrakis(2-methylpyridyl)porphyrin] (MT2MPyP), metal[5,10,15,20-tetrakis(4-methylpyridyl)porphyrin] (MT4MPyP), or metal[[1,3,5,8-tetramethyl-2,4-divinyl-6,7-di(4-methylpyridylamideethyl)]porphyrin] (MPPIX-DMPyAm), wherein the metal (M) is iron (Fe), manganese (Mn), cobalt (Co), copper (Cu), molybdenum (Mo), chromium (Cr), or iridium (Ir).

7. The metalloporphyrin complex-embedding niosome according to claim 3, wherein the nonionic surfactant is one or more of polyoxyethylene sorbitan fatty acid esters, sorbitan fatty acid esters, and polyoxyethylene polyoxypropylene copolymers.

8. The metalloporphyrin complex-embedding niosome according to claim 3, wherein the nonionic surfactant is one or more of Tween-61, Tween-80, Span 80, and Pluronic F-88.

9. The metalloporphyrin complex-embedding niosome according to claim 3, wherein the cholesterol is cholesterol, α -cholestanol, β -cholestanol, cholestane, desmosterol (5,24-cholestadiene-3 β -ol), sodium cholate, or a cholecalciferol.

10. (Amended) The metalloporphyrin complex-embedding niosome according to claim 1, wherein the anionic surfactant forming an ion complex with the cationized metalloporphyrin complex is lauric acid, myristic acid, palmitic acid, stearic acid, oleic acid, dodecylsulfuric acid, tetradecylsulfuric acid, hexadecylsulfuric acid, or octadecylsulfuric acid, or a salt of these compounds.

11. (Cancel)

12. A process for producing a metalloporphyrin complex-embedding niosome comprising reacting a cationized metalloporphyrin complex and an anionic surfactant to form an ion complex, mixing the resulting ion complex with a niosome-forming substance, and treating the mixture with supersonic waves in a medium.

13. (Amended) A drug comprising the metalloporphyrin complex-embedding niosome according to any one of claims 1 and 3 to 9 as an effective component.

14. The drug according to claim 13, which is an anticancer agent.

15. The drug according to claim 14, which is an antioxidant.

16. The drug according to claim 13, which is a therapeutic agent for inflammation, nervous system diseases, arteriosclerosis, or diabetes.

17. (Amended) A method of treating cancer comprising administering the metalloporphyrin complex-embedding niosome according to any one of claims 1 and 3 to 9 to a cancer patient.

18. The method according to claim 17, wherein the administration is direct dosage, intravenous administration, or subcutaneous administration.

19. (Amended) A method of treating of inflammation, nervous system disease, arteriosclerosis, or diabetes comprising administering the metalloporphyrin complex-embedding niosome according to any one of claims 1 and 3 to 9 to a patient suffering from any one of these diseases.